Small Business Innovation Research/Small Business Tech Transfer

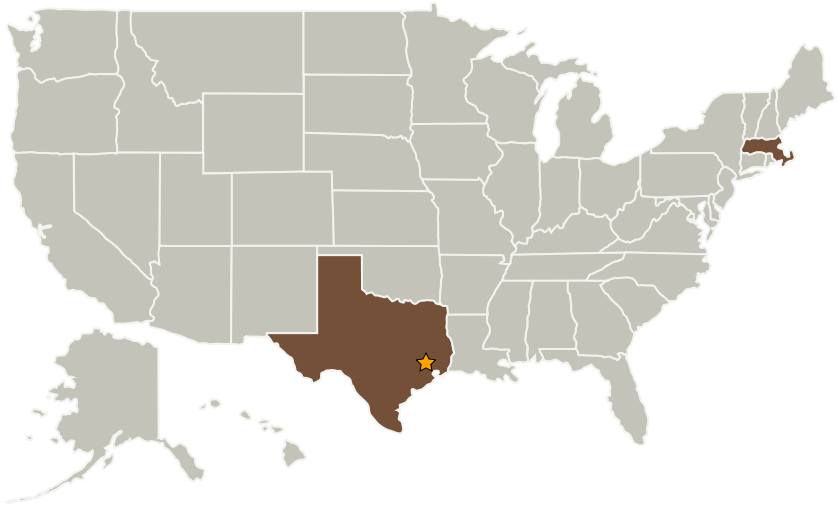
ElastiGlass Barrier Film and Food Processing Techniques for the 3-to-5 Year Shelf-Stable Food Package, Phase II

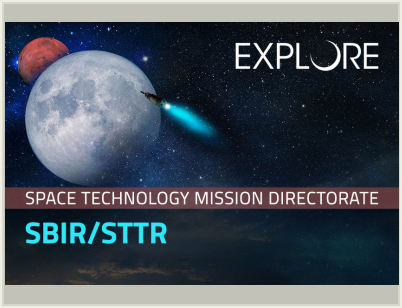
Completed Technology Project (2007 - 2009)

Project Introduction

The National Aeronautics and Space Administration (NASA) foresee extension of exploratory space missions to the Moon, Mars, Venus and beyond. To reach these outer locations will require development of a range of advanced technologies including life support systems. Food represents one of the most crucial components of life support, as the ability to supply safe, nutritious and organoleptically pleasing meals to space flight personnel for the duration of their mission will be of paramount importance in maintaining crew functionality and morale. In this Phase II Small Business Innovation Research (SBIR) program, Infoscitex Corporation will further develop an advanced barrier film, ElastiGlass, which will enable 3-to-5 year shelf life. This technology will also provide the added benefit of reducing the logistic burdens associated with waste handling, and minimizing package weight and storage space requirements. During this proposed program Infoscitex will modify the Phase I proof of feasibility barrier coating formulations to achieve the best combination of minimal oxygen and water vapor permeation, and maximized elongation properties to obtain the best of product durability. Prototype barrier films and subsequent food storage pouches will be fabricated, filled with thermostabilizable foods and tested for shelf life capabilities.

Primary U.S. Work Locations and Key Partners





ElastiGlass Barrier Film and Food Processing Techniques for the 3-to-5 Year Shelf-Stable Food Package, Phase II

Table of Contents

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Small Business Innovation Research/Small Business Tech Transfer

ElastiGlass Barrier Film and Food Processing Techniques for the 3-to-5 Year Shelf-Stable Food Package, Phase II

Completed Technology Project (2007 - 2009)

Organizations Performing Work	Role	Type	Location
★Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Infoscitex Corporation	Supporting Organization	Industry	Waltham, Massachusetts

Primary U.S. Work Locations	
Massachusetts	Texas

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX07 Exploration Destination Systems
  - TX07.2 Mission Infrastructure, Sustainability, and Supportability
    - TX07.2.1 Logistics Management